Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

**Nitrogen Cycle Game De-Brief**

1. Will your journey as a nitrogen atom ever end? Why or why not?
2. Diagram (make arrows) and number (1-8) your travels in the ecosystem as a nitrogen atom

Atmosphere

Rain Water

Live Animals

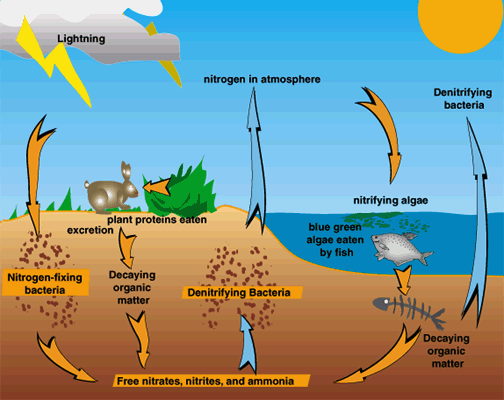
Live Plants

Dead Plants & Animals

Fertilizer Animal Waste Surface Water Ocean

Soil Ground water

1. Was everyone’s journey the same? Why or why not?
2. If everyone started at the same place in the ecosystem would everyone’s journey be the same? Why or why not?
3. Where can nitrogen atoms travel after they are part of fertilizer?
4. Livestock farming creates a large amount of animal waste. How would this affect the nitrogen cycle? (Look on “Animal Waste” paper to determine the places nitrogen travels after it is part of animal waste)
5. Name the process that certain bacteria (often in legumes) perform to convert nitrogen gas (atmospheric nitrogen) into a form of nitrogen that can be absorbed by plants.
6. Name the process that certain bacteria perform to convert nitrogen containing molecules into nitrogen gas (atmospheric nitrogen).



1. In the Venn diagram below, compare and contrast the nitrogen and carbon cycles (use pg 47 & 48. in textbook)
2. Explain why excess nitrogen in the water can lead to fewer fish and shrimp.